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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,736	09/26/2006	Herve Thellier	277409US6PCT	8352

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ALEXANDRIA, VA 22314

EXAMINER

SZEWCZYK, CYNTHIA

ART UNIT	PAPER NUMBER
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1791

NOTIFICATION DATE	DELIVERY MODE
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08/18/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/550,736	Applicant(s) THELLIER ET AL.	
	Examiner CYNTHIA SZEWCZYK	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/26/05, 8/3/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is the initial office action for THELLIER et al. application no. 10/550,736 filed September 26, 2005.
2. Claims 13-22 are currently pending and have been considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. In claim 20, it is unclear what is meant by the phrase “discharging the skeletons”. The claim refers to one skeleton (singular) and the phrase uses the plural form of “skeletons”.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
7. Claims 13, 17, and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by MORIN (US 6,138,477).

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MORIN teaches a process and apparatus for the forming of glass plates with complex shapes. MORIN discloses that the method could be used on one or more sheets at a time (col. 3, lines 37-39). MORIN discloses that the glass sheets are first sagged due to gravity (col. 3, lines 35-36) as in instant claim 13. MORIN discloses that the female mold is raised to be brought into contact with the male mold (col. 5, lines 2-4) (placing a central region of instant claim 13). MORIN discloses that the glass is pressed between the male and female molds (col. 3, lines 31-34) (pressing of instant claim 13). MORIN discloses that a vacuum is applied to the glass through the male former (col. 5, line 5). MORIN discloses that the male and female former are separated with the glass remaining in contact with the male mold (col. 5, lines 8-10). MORIN discloses that a cooling support is brought beneath the male former to transfer the glass to a cooling station (col. 5, lines 10-12).

Figure 2 of MORIN shows that the sagging occurs in an area inscribed entirely within the female mold and that the female mold is brought up towards the male mold as in instant claims 17 and 20.

MORIN discloses that the glass undergo a tempering of approximately 550 °C before bending (col. 5, lines 55-57), which is included in the range of instant claim 19.

MORIN discloses that the operation occurs in a furnace (oven of instant claim 20) and the figures 1-4 show that MORIN contains a system for transporting the glass as in instant claim 20. MORIN also discusses means for discharging the female mold from the glass (col. 5, lines 8-10) and means for moving the female mold vertically (col. 6, lines 27-29) as in instant claim 20.

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MORIN discloses that a vacuum is produced at the periphery of the male mold (col. 6, lines 53-55) wherein the periphery is interpreted to be a skirt as in instant claim 21.

MORIN discloses that the method results in a glass with a coefficient of non-developability of greater than 5 (col. 3, lines 10-12), which is incorporated by the range of instant claim 22.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over MORIN (US 6,138,477).

MORIN teaches a process and apparatus for the forming of glass plates with complex shapes. MORIN discloses that the apparatus can produce glass plates that

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are complex shapes such as spherical (col. 3, lines 42-43). MORIN also discusses that the shape may be imposed by the male mold (col. 3, lines 46-47). MORIN discloses that cylindrical is a simple shape for glass sheets (col. 2, lines 26-29) therefore, it would have been obvious that if the method of MORIN was capable of producing complex shapes, it would be capable of producing simple shapes that are cylindrical as in instant claim 14.

MORIN discloses that the apparatus includes a reheating furnace with a conveyor (col. 5, lines 51-52). It would have been obvious to use a tunnel oven as in instant claim 16 because it fits the description of the heating means described by MORIN.

It would have been obvious to support the glass slightly away from the edge because supporting on the direct edge would not have provided adequate support for the glass sheet during bending and increased the risk of misaligning the glass sheet to the support. A person of ordinary skill could have reached the range of instant claim 18 through optimization testing. Therefore, the claimed invention would have been obvious.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over MORIN (US 6,138,477) in view of REESE (CA 2058729).

MORIN teaches a process and apparatus for the forming of glass plates with complex shapes. MORIN discloses that a vacuum is produced at the periphery of the male mold (col. 6, lines 53-55). It would have been obvious that producing a positive

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gas pressure in the center of the male mold because it would aid in producing the shape of the male mold. MORIN is silent as to the material of the molds.

REESE teaches a method of bending glass sheets between a bottom outline mold and an upper vacuum press face. REESE discloses that the glass sheets are preliminarily shaped by sagging and then press bent (p. 1). REESE discloses that the upper vacuum mold is covered with a woven fiber glass to insulate the upper surface of the glass and aid in diffusing the vacuum flow (p. 14). It would have been obvious to use such a cover on the male mold of MORIN because it would protect the surface of the glass which would result in higher optical quality. Therefore, the claimed invention would have been obvious.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. BALDUIN et al. (US 2004/0129028 A1) discloses a method and device for bending glass panes in pairs wherein the glass panes are first bent by sagging and then press bent between male and female molds with the aid of a vacuum.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA SZEWCZYK whose telephone number is (571)270-5130. The examiner can normally be reached on Monday through Thursday 7:30 am to 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CS
/ Carlos Lopez/
Examiner, Art Unit 1791